

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

November 17, 2014

Mr. Dana Bayuk
Oregon Department of Environmental Quality
Northwest Region, Portland Office
Portland Harbor Section
2020 SW Fourth Avenue, Suite 400
Portland Oregon 97201-4987

HAI Project No. 2708
DEQ ECSI File No. 84

**SUBJECT: Progress Report, NW Natural Site, 7900 NW St. Helens Avenue and
7200 NW Front Avenue, Portland, Oregon**

Dear Mr. Bayuk:

Hahn and Associates, Inc. (HAI) has prepared this monthly Progress Report summarizing Remedial Investigation/Feasibility Study (RI/FS) and source control-related work activities conducted by NW Natural relating to historic manufactured gas plant (MGP) activities at the NW Natural Site during the month of October 2014. NW Natural is completing upland investigatory activities at the NW Natural Site under the Voluntary Agreement No. ECVC-WMCVC-NWR-94-13 (Voluntary Agreement) between NW Natural and the Oregon Department of Environmental Quality (DEQ).

1.0 Communications and Document Submittals

In correspondence dated October 3, 2014 (Chip Byrd to Dana Bayuk) Severson Environmental Services, Inc. (SES), on behalf of NW Natural, transmitted benzene data for filter cake and bag filter solids with a request for DEQ concurrence that disposal at a permitted non-hazardous solid waste disposal facility is appropriate.

In correspondence dated October 6, 2014 (John Renda to Dana Bayuk) Anchor QEA, on behalf of NW Natural, provided DEQ with a summary of operational parameters for the pending Phase 1 Step 6 test of the hydraulic control and containment (HC&C) system.

A meeting with representatives of DEQ, NW Natural, and Siltronic occurred on October 8, 2014 to discuss the status of upland project work being conducted on the Gasco and Siltronic properties.

A teleconference with representatives of DEQ and NW Natural was conducted on October 9, 2014 to discuss DEQ's updated total petroleum hydrocarbon (TPH) concentration estimates and hazard quotients (HQs).

In correspondence dated October 9, 2014 (Dana Bayuk to John Renda) DEQ provided confirmation of a previous verbal approval for installation of Segment 2 extraction wells PW-15U and PW-16U.

In correspondence dated October 9, 2014 (Rob Ede to Dana Bayuk) HAI, on behalf of NW Natural, provided documentation of a September 29, 2014 telephone conversation in which DEQ provided approval to proceed with the third quarter 2014 integrated groundwater monitoring event as described in a September 29, 2014 (Rob Ede to Dana Bayuk) e-mail communication.

Program management implementation calls were conducted with DEQ on October 2 and 30, 2014 to discuss NW Natural program management and project schedules.

In correspondence dated October 21, 2014 (Dana Bayuk to John Renda) DEQ provided confirmation that the agency had no objections to the Phase 1 Step 6 test of the HC&C system proceeding as per the list of operational parameters summarized by Anchor QEA in correspondence dated October 6, 2014 (John Renda to Dana Bayuk).

In correspondence dated October 21, 2014 (Dana Bayuk to Rob Ede) DEQ provided acknowledgement that TPH and TPH-fraction analyses as included within a September 29, 2014 update to the Integrated Groundwater Monitoring Program was adequate. DEQ provided several clarifying comments and the program was approved as revised.

In correspondence dated October 22, 2014 (Dana Bayuk to Bob Wyatt) DEQ provided NW Natural with approval of the September 12, 2014 *Final Sampling and Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP) for the Fill Water-Bearing Zone* for implementation, subject to provided clarifying comments.

In correspondence dated October 22, 2014 (Dana Bayuk to Taku Fuji and Ben Hung), DEQ provided a revised memorandum documenting the steps used to calculate soil TPH hazard quotients to be used in the *Gasco Upland Human Health and Ecological Risk Assessment (HERA) Report*.

In correspondence dated October 23, 2014 (Dana Bayuk to Bob Wyatt) DEQ provided conditional approval for the disposal of filter cake and bag filter solids as non-hazardous waste at the Hillsboro Landfill as requested in SES's October 3, 2014 correspondence.

In correspondence dated October 30, 2014 (Ben Hung to Dana Bayuk) Anchor QEA, on behalf of NW Natural, summarized the agreed process and schedule for finalizing the *Gasco Upland HERA Report*.

2.0 Field Work

Distributed Temperature Sensing (DTS) testing was completed adjacent to a portion of shoreline at the Gasco site during the first week of October.

Phase 1 Step 6 HC&C testing was completed between October 13, 2014 and October 21, 2014.

HAI and Anchor QEA completed the Third Quarter 2014 Integrated Groundwater Monitoring Event at the Gasco and Siltronic properties during October 2014 (initiated October 1, 2014 and completed October 30, 2014).

HAI field activities related to monitoring and maintenance of the dense non-aqueous phase liquid (DNAPL) extraction system at surficial fill well locations MW-6-32 and MW-13-30 occurred during October. The above ground storage tank (AST) reached capacity during September and the contents were removed and transported off-site for re-refining on October 13, 2014. The system recovered approximately 26 gallons of fluids in October, primarily DNAPL, after resuming normal operations during the latter half of the month.

Tasks related to optimization of the hydraulic control and containment (HC&C) system and the wastewater treatment system (continued operation and testing) were conducted in October 2014. Winterization of the HC&C system piping and fixtures was completed during October 2014.

Baseline DNAPL removal as needed to maintain at levels below the top of the well sumps was conducted by Anchor QEA during October 2014 in the following wells near the river shoreline.

- MW-16-45
- MW-26U
- MW-27U
- MW-38U
- MW-PW-2L
- PW-1-80
- PW-2L

On March 31, 2014 NW Natural discontinued discharges of treated groundwater to the sanitary sewer (Industrial Wastewater Discharge Permit 500.022). All water is now directed to NW Natural's on-site wastewater treatment plant and discharged to the Willamette River consistent with National Pollutant Discharge Elimination System (NPDES) Permit No. 103061 (expires August 31, 2018). Results from NW Natural's NPDES effluent sampling are provided to DEQ in Discharge Monitoring Reports that are submitted on a monthly basis in accordance with the permit. As of October 31, 2014 a total of 80,735,180 gallons of treated water were discharged under the NPDES permit.

3.0 Anticipated Activities November and December 2014

NW Natural and DEQ technical working group communications and meetings are anticipated to occur as needed during November and December 2014 to discuss ongoing project tasks, including DEQ-requested revisions to the Gasco HERA document.

Initiation of supplemental Doane Creek investigation activities remains contingent upon receipt of DEQ confirmation that the analyte list and screening levels are suitable for the Siltronic MGP Human Health and Ecological Risk Assessment. Legal access agreements with the off-site property owner (Burlington Northern Railroad) will also be necessary prior to initiation of field activities.

Transport and recycling of the oil-water mixture originating from the TCE CMMA of the NW Natural Gasco Site will be scheduled following further discussion with DEQ. DEQ provided feedback regarding this item in a letter dated September 4, 2014. NW Natural is developing an approach to address DEQ's comments.

Monitoring well installation activities as described within the *2014 Final SAP and QAPP for the Fill Water-Bearing Zone* are expected to be installed during November 2014.

The following reports and work plans for the Site have been submitted to DEQ through the date of this progress report. Unless otherwise noted, NW Natural has not received DEQ comments on these documents.

- NW Natural's June 5, 2014 request (Rob Ede to Dana Bayuk) requesting concurrence of a final proposed analyte list and screening levels for use in the Doane Creek-related FSP being conducted as part of the Siltronic property RI.
- *Response to DEQ Request for Supplemental Information on Location of Former Industrial Use Supply Well, Mult 802, NW Natural Gasco Property*, transmitted by HAI (Rob Ede to Dana Bayuk), dated August 13, 2014.

Should you have any questions, please contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read "Rob Ede", followed by a stylized flourish.

Rob Ede, R.G.
Principal

robe@hahnenv.com

- c: Mr. Bob Wyatt, NW Natural (electronic only)
Ms. Patty Dost, Pearl Legal Group PC (electronic only)
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